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AUTHOR Sweigart, Elizabeth Cooling
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ABSTRACT

Through an analysis of children's reading materials published in the 1930's and 1960's, an attempt was made to show the difference in the amount of responses requiring literal comprehension (i.e., direct or paraphrased answers from the reading materials) and critical comprehension (i.e., use of interpretive and critical reading skills). Examined were materials published by the same companies--five basic readers, seven workbooks, and two sets of "My Weekly Reader." Findings showed that critical response gains in the newer materials varied from 10-60%, with the average gain of 32 in critical questions for all the materials. In spite of this increase, the average number of literal questions and responses remained the same in the 1960's as in the 1930's. Also noted was that in all materials except one, the actual number of vocabulary responses increased greatly. This analysis of materials appears to reflect the more recent emphasis on critical comprehension; nevertheless, literal comprehension questions still account for approximately 50% of the total number of comprehension questions surveyed. (Appended are a reference list and tables indicating percentages of literal and critical responses.) (HS)

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READING COMPREHENSION EMPHASIS IN PUPIL MATERIALS DURING THE 1930'S AND THE 1960'S

A THESIS

SUBMITTED TO THE FACULTY

OF THE GRADUATE SCHOOL OF EDUCATION

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BY

ELIZABETH COOLING SWEIGART

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OF

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ABSTRACT

Through examination of children's reading materials published in the 1930's and in the 1960's, an answer to the following question was sought:

Is there a difference in the amount of responses required for literal comprehension questions and critical comprehension questions in the newer materials of the 1960's when compared with the older materials of the 1930's?

To answer this question, the following hypotheses were proposed:

1. There will be a significant decrease in the number and percentage of responses for literal comprehension in 1960 pupil reading materials when compared with the 1930 pupil materials.

2. There will be a significant increase in the number and percentage of responses for critical comprehension in 1960 pupil reading materials when compared with the 1930 pupil materials.

Significance will be defined as a change in excess of 25%.

A minor question investigated was:

Is there a difference in the number and percentage of vocabulary responses in the 1930 pupil materials when compared with the 1960 pupil materials?

Literal questions were defined as those which could be answered by a direct or paraphrased answer recalled from a statement in the reading material. Critical questions were defined as those requiring use of any of the interpretive and critical reading skills.

Materials examined were readers and workbooks of the 1930's and readers and workbooks of the 1960's published by the same companies. Materials used were those of the following publishers: Scott Foresman, Macmillan, Ginn, Houghton Mifflin, and American Education Publications. Tabulations were made from each book to determine the actual number of each kind of response required. From the tabulation sheets the percentage of responses required for each type of question was also obtained. Then the amount of change in actual numbers and in percentages was charted.

The findings represent substantial changes in the 1960's editions in the responses required for critical questions over the literal ones. The newer materials showed critical response gains by all publishers varying from 10% to 60%. Two publishers increased their critical questions so that those responses now represent over 50% of the comprehension questions, but the other three publishers still have literal responses representing over 50% of the comprehension questions. The average change in

percentage for all materials was a gain of 32% in the critical questions. This change is significant because it met the criteria of 25%.

An interesting finding was that, although the number of critical questions and responses did increase, and thereby raised the percentage, the average number of literal questions and responses remained the same in the 1960's as in the 1930's.

Because vocabulary had been emphasized in the past more than comprehension, the percentage change for vocabulary was computed also. It was found that, although emphasis has increased on critical comprehension, vocabulary continues to be given substantial emphasis. In all materials except one, the actual number of vocabulary responses greatly increased. The percentage of vocabulary responses among total responses remained approximately the same in three materials and greatly increased in two others.

The findings appear to reflect the emphasis that reading experts have more recently been placing on critical comprehension over literal comprehension. In spite of this emphasis, however, it must be noted that literal comprehension questions still account for approximately 50% of the total comprehension questions surveyed in this study.

TO ROY

whose willingness to type for countless hours,

whose continual encouragement,

and whose constant patience and good nature

made these four years possible

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CHAPTER I

INTRODUCTION

Education used to be concerned with the amassing of facts, and evaluation of learning in any subject was determined by the retention of facts. For example, those people who were products of the school of two generations ago evidenced their store of knowledge in United States geography by reciting the borders of all states, the capitals, the rivers, the topographical features, and other types of information.

In comparatively recent years, the trend has been to emphasize teaching students to make inferences from their reading, evaluate the content, and, wherever possible, to make applications. It must be said, however, that these outcomes of learning have been expected by sages throughout the centuries--"The lessons of history" and "Learn to profit through our mistakes" are old clichés--but direct emphasis on these purposes seems a relatively new approach in our schools.

Inasmuch as some types of learning--appreciation, application--are best revealed through discussion or in some sort of project, the greatest change in the type of

learning has been seen in the shift from written examinations at the end of a unit of study to a project illustrating such appreciation or such application. This is relatively easy to accomplish in science or social studies, for example, where the learning and its application are important and not the vehicle whereby they came: i.e., learning in such subjects can come from listening, discussion, and audiovisual aids.

In the teaching of reading today we advocate reading to develop concepts, not facts--McGraw-Hill's most recent set of "Practice Readers" (comprehension exercises) is entitled Reading for Concepts. In the field of reading, however, teachers train students to use one method of learning, namely, the interpretation of visual symbols and the understanding of the message through the sum of those symbols. In our concern to test the individual's comprehension of silent-reading activities, we have historically relied mainly on literal comprehension questions; this is, naturally, the easiest part of comprehension to record. Still, since the emphasis in learning is shifting to develop these other areas of comprehension (inferences, application, evaluation, appreciation), there must likewise be a change in our methods of evaluating comprehension in reading.

Statement of the Problem

The purpose of this study is to examine and compare reading comprehension materials of the past decade (the 1960's) with the materials available in the 1930's.

The question to be answered in the study is:

Is there a difference in the amount of responses required for literal comprehension questions and critical comprehension questions in the newer materials of the 1960's when compared with the older materials of the 1930's?

Hypotheses

In order to answer the question in this study, the following hypotheses were proposed:

1. There will be a significant decrease in the number and percentage of responses for literal comprehension in 1960 pupil reading materials when compared with the 1930 pupil materials.

2. There will be a significant increase in the number and percentage of responses for critical comprehension in 1960 pupil reading materials when compared with the 1930 pupil materials.

Significance will be defined as a change in excess of 25%.

A minor question to be investigated in this study is:

Is there a difference in the number and percentage of vocabulary responses in the 1930 pupil materials when compared with the 1960 pupil materials?

This question is of importance because, as noted by Williams (1959), before the 1930's the ability to recognize words was used as the measure of comprehension.

Materials used in the study were basic readers and workbooks published in the decade of the 30's and in the decade of the 60's. These were selected according to availability of the older materials. Materials of the two decades were compared to determine actually what kind of exercises (questions) were used in pupil materials. The numbers and percentages of responses for each type of question were computed. A comparison of percentages then was compiled for the two periods of time.

Definition of Terms

The types of comprehension questions have been divided into:

1. Literal comprehension--a question requiring only a direct or paraphrased answer recalled from a statement in the reading material.

Smith (1969) and Barrett (Robinson, 1968) both list this as the lowest level of comprehension. The lowest level of Bloom's taxonomy (1956) deals with literal comprehension.

2. Critical comprehension--a question which requires use of any of the critical and interpretive reading skills.

The term critical in this study includes the types of comprehension listed in Smith taxonomy (Smith, 1969) as interpretation, critical, and creative. The term would also include reorganization, inferential comprehension, evaluation, and appreciation as explained in Barrett's taxonomy (Robinson, 1968). Williams (1959) lists as critical reading all skills that are on a higher level than literal comprehension. Levels two to six of Bloom's taxonomy (1956) deal with critical skills.

These definitions, or classifications, are peculiar to this study. The various taxonomies divide the higher types of reading skills among several groupings, each taxonomy differing from another.

The terms questions and exercises have been used interchangeably in this study. These terms mean any questions or statements following a story or article in the student's book and all of the pages in the student's workbook which require the student to make a response.

Reflected in the term questions throughout the study is the number of responses required for those questions. The reason for this is that the number of responses required determines the amount of thinking required by the

student. A response means any answer required by the student. It may be of one word supplied by the student, a circling of a letter before a multiple-choice exercise, or it may require the student to write a short paragraph.

Limitations of the Study

This study has been limited to materials for one grade. Grade five was chosen because of its midpoint in those elementary grades that place increasing emphasis on comprehension. The materials used were the pupil's basic reader, the accompanying workbook, and the teacher's manual (for purposes of determining types of exercises) from four publishers of basic readers: Scott Foresman Company, Houghton Mifflin Company, Ginn and Company, and Macmillan Company. The reason for selection of basic readers was because they were the main teaching tool during the past 30 to 40 years. A comparison has also been made for My Weekly Reader--the first weekly newspaper planned for school children.

Many new types of reading materials are available today, but since they had no direct "ancestors," they cannot be compared with the former materials. This study is an attempt to show the change in emphasis in materials of the same publishing houses who have grown with the changing times.

Overview of the Study

In Chapter II, the writings of authorities in the reading field have been examined with an attempt to discover what they thought was being taught in the area of comprehension and what they felt were the neglected aspects of comprehension.

Chapter III explains how the materials for this study were chosen and located. It explains what the authors' aims were in the development of their questions (or exercises) for students. This explanation was culled from the guidebooks of the Scott Foresman and Macmillan Company readers and from the Teacher's Editions of My Weekly Reader. Chapter III also shows how the students' exercises from each text, workbook, and newspaper were examined for type of response, entered in tables, numbers tallied, and then percentages found. It explains how responses were organized.

Chapter IV shows in discussion and in tables how the various responses from the books compare in percentages, and interprets the findings of this study.

Chapter V presents the summary of the study.

CHAPTER II

REVIEW OF THE LITERATURE

In the 1920's educators began to be concerned about the great emphasis being placed on oral reading and mastery of vocabulary. This concern was a result of research in reading which was rapidly making an impact on the materials and methods to be implemented. Prior to this time, the emphasis in the teaching of reading was on decoding. Williams (1959) relates: "Earliest investigations in education and psychology explained the complete reading act as the visual recognition of words by means of a simple mental process [p. 323]." It was assumed that if one could call words by names, one could also comprehend--the skills of comprehension presumably came automatically. Comprehension testing (if done at all) was done informally, orally, and haphazardly at the whim of the teacher. "In the 1930's--recite the facts, word by word, and prove you have read--was the measure of comprehension [Stauffer, 1969, p. 111]." Undoubtedly, there were teachers who stimulated depth of thought (from the reading matter) in their pupils, but it is not indicated in the records of the early schools.

In spite of the fact that readers in use prior to the 1920's only gave suggestions for steps toward competence in word recognition, there were some educators who, in their writings previous to 1920, concluded that meaning was of first importance in reading. Huey (1918), whose book originally appeared in 1908, said that reading should always be for meaning and that "reading and hearing of literature is to be depended upon to impregnate the soul with the race's highest ideals and tastes [p. 382]." Huey reported dissatisfaction with reading "as now carried on in the elementary school" and criticized the emphasis on the mechanical use of oral reading and word pronunciation (p. 301).

The materials that originated in the 1920's included standardized tests and basic readers that were primarily concerned with comprehension as understanding the meaning of sentences and paragraphs. It seemed natural that the first type of comprehension questions would be of a factual and literal nature. A new aid for teachers came into being around this time, the guidebook or manual, which, of course, gave suggestions for oral or written questions. The early guidebooks were usually quite small and concise compared to our present-day ones. However, Witty, Freeland, and Grotberg (1966) mention that Bolenius developed one for first grade in the 1920's that

was over 500 pages long, and Smith (1964) mentions that "every author of new reading textbooks furnished generous instructions for the use of his materials [p. 164]." The student's workbook or seatwork pad followed around 1925. Zimet (1969) mentions that many courses of study resulted at this time from scientific studies pointing out diversity of purposes for reading and the different abilities needed to achieve them.

Reading Aims

The next four decades produced an abundance of writings by educators setting forth the multitudinous needs and goals of the teaching of reading. The Twenty-Fourth Yearbook of the National Society for the Study of Education (Whipple, 1925) quotes Henry Suzzallo thus:

> Democracies with a far-flung population, greatly diversified in occupation and manner of life must rely heavily for common appreciations upon printed records, newspapers, magazines, and books. . . . Thus teachers and schools have become necessary to that expanded power of appreciation, chiefly gained through books, which our modern democracies and world relations require [p. 2].

More recently, Smith made a similar statement when she discussed the implications of lack of reading on our lack of knowledge. "This leads to discrimination against peoples and inability to make intelligent decisions [Gray & Larick, 1956, pp. 15-16]." Emans stresses the need for intelligent, thoughtful, critical reading because much of

our knowledge now is gleaned secondhandedly through print, radio, television, and film and thus contains someone else's beliefs and biases (Robinson, 1965, p. 13).

In a similar vein, Dewey (1930) made the following comments: "He who has learned, as we call it, to read without having learned to judge, discriminate, and choose, has given hostages of dependence to powers beyond his control [p. 17]." Smith (1964) also warned: "The most imminent danger of mass communication lies in its potency as a molder of public opinion [p. 18]."

In the Twenty-Fourth Yearbook (Whipple, 1925), Suzallo also states the following: "A great deal of the reading assigned there [in schools] belongs primarily to the work type. . . . Unfortunately, we have too often required such reading, rather than taught pupils how to do it effectively [p. 5]."

Among Suzallo's list of objectives in reading are included: "evaluating meanings to compare facts read with items of information from other sources, to weigh evidence presented, to interpret critically [Whipple, 1925, p. 5]." Following this list, some good suggestions are given for informal comprehension testing.

William S. Gray was chairman for the National Reading Committee (which prepared the Yearbooks for the N.S.S.E.) both in 1925 and 1937. In Chapter I, "A Decade

of Progress," Gray reports:

> . . . materials read have been organized increasingly in terms of thought-provoking units, problems, or areas of interests, as contrasted with a series of unrelated passages or selections. This plan insures challenging trains of thought that promote good interpretation and more thorough organization and use of the ideas gained through reading [Whipple, 1937, p. 7].

> Great improvement has been made in methods of teaching reading, resulting in increased emphasis upon the meaning or content of what is read and in the elimination of much of the formal drill required in the past [Whipple, 1937, p. 8].

> The number of reading tests has increased rapidly during recent years. . . . Unfortunately, few of the tests developed thus far measure progress in certain highly important phases of reading, such as interpretation, appreciation, and ability to apply what is read in the solution of challenging problems [Whipple, 1937, p. 8].

Gray then lists some undesirable elements of progress between 1925 and 1935:

> The large importance attached to silent reading has resulted unfortunately in several related practices and trends that cannot be defended. Among them . . . the preparation of elaborate and detailed comprehension exercises that have little or no relation to vital situations or needs . . . [Whipple, 1937, p. 9].

Gray goes on to emphasize the necessity of improving interpretation, critical evaluation, and greater power in applying the content of what is read. "Notable developments in educational theory and practice" which, Gray says, should affect content and methods of reading, include realization that "education is conceived primarily as a process of growth toward desirable goals,

rather than as a series of lessons that aim merely to promote the memorization of facts [Whipple, 1937, p. 13]."

"A conception of reading acceptable to this yearbook committee must include reflection, critical evaluation, and the clarification of meaning [Whipple, 1937, p. 26]." Gray adds that reading must aid the student in the ability to make successful application of what he has read. Gray also mentions that there are a surprisingly large number of specific purposes for which pupils read. He quotes a study by Hathaway in which she listed 1,620 purposes. Undoubtedly, there must be many overlapping purposes; certainly, the only way a teacher can handle this phase of teaching is to use relatively few categories of purposes.

Gray impresses us next with the seriousness of our task as teachers.

> In view of the facts . . . it is evident that teachers . . . face a major responsibility in training pupils to engage effectively in the various types of reading activities in which they should participate [Whipple, 1937, p. 28].

Stone (1926) lists (among other objectives in reading instruction) objectives of "inculcating fundamental behavior attitudes and ideals, appreciation of social and aesthetic values [p. 85]." He recognized at that time (the 1920's) that in the middle and upper grades there was an overemphasis on details and word study to the detriment

of the larger significant values of a selection. He also decried the overemphasis on oral reading (p. 117).

Stone (1926) listed the following silent-reading objectives:

> To train specifically in the following factors involved in the more complex forms of interpretation and mastery:
>
> 1. Recognizing a problem and comprehending its essential condition.
> 2. Locating and selecting data that bear on a problem or topic.
> 3. Comprehending the author's organization.
> 4. Analyzing, associating, and organizing according to the purposes at hand.
> 5. Perceiving the purposes of the author.
> 6. Evaluating reading material and judging the validity of statements.
> 7. Reading with the best technique for retention and recall for a special purpose; such as, to use in discussion or to reproduce to others.
> 8. Using reference materials [p. 199].

Coming closer to the present time, we find the literature abounding with criticism of the way comprehension has been taught and with ever-expanding lists of reading goals. Robinson (1958) reflects that

> twenty-five years ago most test items required only simple comprehension of reading passages and over the years, teachers realized that interpretation of reading materials was much more than straight-forward comprehension [p. 47].
>
> The period since 1925 has witnessed social, economic, and political events and crises in greater number and severity than any previous period of corresponding length in our history. Each presented challenging problems that called for wide, penetrating reading, broad understanding, and clear thinking [p. 10].

In 1933 an 8-year study was begun by the Annual

Conference on Reading to identify values teachers were attempting to reach. Although stating that it is difficult to define objectives clearly, the article (Robinson, 1958) continues with: "The purposes or objectives of education are to help the student acquire ways of behaving; that is, ways of thinking, feeling, and acting, which he has not previously followed [p. 5]."

In the chapter "Comprehension and Interpretation" (Robinson, 1958), Anderson lists 12 kinds of reading competencies commonly mentioned in the literature.

1. Ability to select the appropriate meaning for a word or phrase in the light of its particular contextual setting.
2. Ability to grasp the central thought or meaning of a passage and to summarize it.
3. Ability to differentiate between main ideas and supporting details.
4. Ability to understand direct statements made by author.
5. Ability to observe the organizational characteristics of a passage, whether it be a paragraph or a larger whole.
6. Ability to draw inferences from a passage.
7. Ability to criticize the passage with respect to ideas, purposes, or presentation.
8. Ability to determine a writer's purpose, intent, point of view, mood, tone, i.e. to draw inferences about a writer.
9. Ability to recognize and interpret metaphorical language.
10. Ability to recognize the literary, rhetorical, grammatical and structural devices used in the passage.
11. Ability to relate the ideas found in the passage to the reader's present knowledge.
12. Ability to see the implications of the passage and to act on them in everyday living [p. 104].

The first 10 competencies listed above are the

type which can be measured by paper-and-pencil tests or in workbook material; an objective score of comprehension presumably could be obtained. The eleventh might be added to the 10. The last, however, is certainly of a very subjective type learning, and evaluation would be most difficult.

The following comment by Smith (1969) is a criticism of the way in which comprehension has been taught in the past. "The implementation of the recommendations [of great philosophers concerning the relationship of thought and learning] has scarcely been discernible in the teaching of reading even as century after century has passed by [p. 249]." Smith quotes Edgar Dale: "Instead of accepting and learning what the book says, students must analyze what the author meant, compare and contrast it with their own experiences--synthesize, evaluate, apply [p. 249]."

Jacques Barzun is also quoted:

> Thinking is doing to a fact or an idea what we do to beefsteak when we distribute its parts throughout our body. We are presumably stronger and better for it, readier for attack and defense, as well as more competent to assimilate more of the same protein without strain [Smith, 1969, p. 249].

Smith claims that we do not "have clear and concise concepts of the different faces of comprehension which deal with the higher mental processes, nor do we have adequate procedures to serve us in providing practice on these specific processes in connection with reading

content." She also feels that we need more research in this area--we have gone "all out in research on decoding, the disadvantaged, perception, etc. [p. 250]."

Since so many publishers have heard the angry cry concerning the "Look-See" method of word attack and have issued new materials with emphasis on linguistic approaches, the criticism of decoding is diminishing. Publishers are now placing more advertising emphasis on their treatment of comprehension skills. The treatment of these skills in the children's workbooks and the teacher's manual has, in many instances, been well done and has not received the commendation it deserves. Williams (1959) emphasizes that use of the reading textbook "without taking advantage of the excellent guidance offered in the accompanying manual will only foster haphazard reading habits [p. 330]."

Taxonomies

Two lists of objectives in reading comprehension (or abilities to be fostered) have already been given. Smith (1969) gives an unencumbered, usable list; she suggests four main categories with numerous subheadings.

1. Literal comprehension--(lowest rung on the ladder)
2. Interpretation--(supplying meanings not directly stated)
    - reading between the lines
    - generalizing
    - reasoning cause and effect
    - anticipating endings

making comparisons
sensing motives
discovering relationships

3. Critical reading--evaluates, passes personal judgment on quality, value, accuracy and truthfulness of what is read.
4. Creative--includes problem solving application [p. 259].

Barrett's Taxonomy of Reading Comprehension (Robinson, 1968) states similar purposes in reading in slightly different terms:

1. Literal Comprehension
2. Reorganization (putting ideas in one's own words)
3. Inferential Comprehension
4. Evaluation
5. Appreciation [p. 19]

Bloom's Taxonomy of Educational Objectives Handbook I: Cognitive Domain (1956)--although not limited to learning through reading--is pertinent here. Bloom states: "The cognitive domain . . . includes those objectives which deal with the recall or recognition of knowledge and the development of intellectual abilities and skills [p. 7]." Bloom describes this as "the domain which is most central to the work of much current test development [p. 7]." The six areas of this taxonomy are (with many subdivisions) (pp. 201-207):

1. Knowledge
2. Comprehension (including interpretation)
3. Application
4. Analysis (breaking down information so as to make clear relationships of ideas)
5. Synthesis
6. Evaluation

Examination of Readers to Determine Skills Taught

Before turning to the reading texts to note the authors' lists of objectives in the basic reading materials, we note that Williams (1959) gives a warm recommendation for these children's books:

> The basic reading series today are carefully developed materials which provide thoughtful gradation in difficulty, and carefully planned activities in the various types of reading the child will need. Accompanying manuals provide guidance in the use of the materials for developing specific skills at all levels of achievement. . . . Teachers at this [elementary] level should be well equipped to guide reading activities when the basal reader approach to reading instruction is properly utilized [p. 325].

Williams made a study of the reading skills as listed by the authors of 10 basic reading series published in the 1950's (the 10 were not identified). She then tabulated 33 critical reading skills. These are a few of her conclusions:

> Only three of the skills were listed in all ten sets of basic readers. The largest number of critical reading skills found in a single series was twenty-four while the smallest number was eleven. Twenty-one of thirty-three critical reading skills are developed on all reading levels from preprimer through grade 6. Well prepared teachers' manuals have been provided to offer systematic guidance in the development of essential thinking skills. However, the non-use and misuse of these materials are responsible for the unfavorable practices that nurture inaccurate and purposeless reading skills [p. 329].

Williams indicated that all 10 sets make adequate provision for "developing the fundamental reasoning abilities required for active thinkers [p. 329]." The seeming

conflict between the first conclusion and the statement in the sentence above can be explained by this statement by Williams:

> In each series there is some difference of opinion concerning the naming of the critical reading skills. This is significant for the results of the tabulations have been affected by the writer's interpretation of a listed skill [p. 329].

A review of this chapter should impress one with two facts: first, the sampling of the writings of experts reveals a staggering number of purposes for reading comprehension, and, second, most of the skills advocated by the experts have been advocated for nearly a century.

The proliferation of skills can and must be solved by an agreement among reading experts about the best terminology for a list of skills and a description of the types of exercises related to those skills. The book having the longest list of purposes for reading may not be meeting needs of comprehension as well as the book containing a concise list.

Goals similar to those presently advocated were mentioned by Huey in 1908. Robinson (1958) states: "A review of professional literature relating to reading shows that the 1924 statement of objectives is still used widely with but minor changes [p. 10]." The list of objectives is, and has been, worthy of commendation. If so, why has there been such intense criticism recently of

the teaching of reading comprehension?

There can be two objects of this criticism: the materials and the educator. Virgil Herrick, in the Sixtieth Yearbook of N.S.S.E. (Henry, 1961), stated that "the content, structure, and format of present reading materials can be improved." He also criticized the instructions in workbooks as being more difficult than the reading matter itself. However, the literature indicates that a more frequent candidate for criticism is the teacher herself. The question is: are we putting these objectives into practice? Robinson (1970) says: "Teachers are reportedly not addressing themselves to this higher-level skill [critical reading] [p. 79]." Hosic is quoted in Stone (1926) as saying that teachers do not use study guides in children's books but rather ask their own uninspiring questions; Williams (1959) implied that teachers' manuals were neglected.

The literature seems to point the finger of inadequacy at the teacher rather than at the published materials. Before making a decision as to where the blame lies, we will look at the books children have been using to see how well the materials offered to our children measured up to these goals in the past, and how they make their mark today.

The newer books are more wordy and contain longer

lists of objectives for comprehension. It will be interesting to see whether this will point to more variety of types of comprehension questions in the children's materials.

CHAPTER III

PROCEDURE

The biggest problem in this study was how to determine what materials to use. The Scott Foresman books were used because of their wide popularity in the past and because William Gray was an author of the earlier books in this series and Helen Robinson of the more recent ones. The Macmillan books were chosen because of the authors past and present: Arthur Gates and Albert Harris. My Weekly Reader, as the longest established children's news weekly, seemed the logical periodical to use. Locating these older materials created a problem. Letters were sent to many publishers asking for suggestions as to where their older editions might be found. Replies varied. One publisher replied that a fire had destroyed their collection; another replied that I was welcome to examine their books in their office in Boston. Some answered that they would be pleased if I could let them know of a library containing their books.

Eventually, the Scott Foresman and Macmillan materials of the 1930's were located at Teacher's College Library of Columbia University. Xeroxed copies of

several old editions of My Weekly Reader were obtained from the publisher.

Materials Included

The books examined in this study were: Pleasant Lands, fifth-grade reader of the Macmillan Company, 1932 edition, the accompanying teacher's manual, and the Preparatory Book for this reader; Bold Journeys (Teacher's Edition), Macmillan Company, 1968, and Discovery Book, the accompanying workbook; Elson Basic Reader, Book 5, the teacher's manual, and the Extension Reading Workbook, Scott Foresman materials of 1931 to 1934; Vistas (Teacher's Edition) and Think and Do Book for Use With Vistas, Scott Foresman, 1965. The My Weekly Reader editions included six copies from the 1930's (sent by the publisher) and six copies from Autumn 1970 (donated by a student). (See references for exact numbers and dates of My Weekly Reader.)

Because it seemed necessary to compare more than three sets of children's reading materials, a search for more of the older materials was again undertaken. This resulted in the examination of a Houghton Mifflin reader --The Bolenius Readers, Sixth Reader, 1929 (no fifth-grade book nor workbook was available); a Ginn reader--The New Path to Reading, Book 5, 1932, and a Ginn workbook--My Work and Fun Book, Book 5, 1931.

For comparison, the Workbook for Bright Peaks (grade 6) from Houghton Mifflin (1966), and My Do and Learn Book (grade 5) of Ginn and Company (1964) were used.

Statements of Aims in the Texts Chosen for Study

Before examining the children's materials, the manuals or guides of the first three publishers were checked to ascertain their purposes. Since materials of Houghton Mifflin and Ginn and Company were added later, the purposes as related in their guidebooks are not included in the study.

Scott Foresman Materials

Basic reader, 1931. From the Scott Foresman Guide Book, 1931, we learn that the basic comprehension aim of this book is to "develop accuracy, thoroughness and depth of comprehension in general assimulative reading [p. 10]." The skills involved include "anticipating meaning of what is read, thinking actively about the content, and reacting to or making some use of the meanings derived [p. 10]."

Prior to the 1920's, most reading materials were collections of short passages. The 1931 guidebook notes that such passages prevent the student from developing the art of reading lengthy passages or books, and explains that this reader contains long selections. The specific habits and skills (listed in the Guide on pp. 37-38) are

intended to train children in:
finding specific answers to factual questions
use of graphs, maps, etc.
locating a part of a selection that answers a question
comparing details in several selections
arranging points of story in sequence
selecting best answer to a thought question
establishing validity of fact or idea
extending vocabulary
using reference materials
answering judgment questions.

The exercises given to develop these skills are included in the child's reading book following each story or selection. There was no workbook when the manual was published in 1931. However, the Extension Reading Work-Book was published in 1934, and directions are given therein as to how to use it with the basic reader.

Basic reader, 1965. The manual for the recent Scott Foresman basic reader, Vistas, uses four pages to list "Provisions for the Essentials of Reading Competence" in their reading program. The list contains many critical comprehension skills, many with subdivisions. This list closely corresponds to Williams' list, compiled from 10 basic readers. The list contains 95% of the skills that were covered in 5 or more of the 10 readers Williams examined; it contains 25 of the 33 skills Williams listed; and it contains many additional ones. All in all, the manual shows a broad list of skills to be covered.

The earlier teachers' manuals or guides listed fewer categories of skills and their statements of purposes

were more concise; the newer ones are quite wordy. One wonders whether the newer materials are much better or whether the "advertisements" are just more forceful.

Robinson et al. (1965) define critical reading as

> judging the veracity, validity, and worth of what is read, based on sound standards developed through previous experiences. . . . The first requisite for critical reading is an inquiring attitude that leads to continuous evaluation both while reading and after a selection is completed. Sensitivity to the author's purpose is another important aspect, as is the ability to judge the relevancy and authenticity of reading materials. Another requisite is the ability to suspend judgment until the end of a selection or book [p. 302].

(Robinson gives a similar explanation in her November 1970 article in the Journal of Reading.)

Macmillan Company Materials

Basic reader, 1932. The Pleasant Lands reader and accompanying Preparatory Book of the Macmillan Company were published in 1932. The manual which followed in 1932 thus explains the purposes of and gives directions for using both books. Objectives of the fifth-year course, listed in the manual, included the following comprehension areas:

1. Develop interest in reading for information and pleasure
2. Introduce the pupil to and cultivate taste in the best children's literature
3. Develop and refine pupil ability to attack recreational and work or study reading
4. Develop skills essential to rapid, accurate, full comprehension
5. Cultivate the power of appreciation
6. Develop in the pupil various desirable personal attitudes and abilities, such as mental curiosity

> and alertness, aptitude for cooperative action, ability to plan and execute projects, ability to undertake original and creative work, ability to establish desirable standards of achievement, and ability to judge, reasonably, his own accomplishments [p. 1].

The purposes of comprehension questions are explained on page 8 of the manual. "Comprehension questions which follow certain selections are designed to foster thinking and discussion, rereading, and reconsideration of ideas acquired." The Preparatory Book is planned to kindle interest and follow the book to refine comprehension in the reader. It contains exercises for the comprehension of main ideas, significant details, key sentences, finding answers to particular problems, anticipating coming events, foretelling logical conclusions. "Problems in the Preparatory Book foster out-of-school reading and thinking [pp. 17-18]." It carries over to newspapers and magazines, encourages interest in current events and local conditions. "By encouraging students to reach out to related activities, [this book] develops many desirable personality habits and attitudes [pp. 20-21]." The purposes of the Preparatory Book (Manual) are to:

1. Provide preparation for selections in the Reader by supplying background information and interest in the topic and introduce new words.
2. Provide follow-up and review activities for the Reader selections in comprehension exercises [provide] problems in application or expression [p. 49].

Contrary to the usual plans of publishers, use of

this workbook was recommended in the manual but not considered essential. Because of this, probably, the manual suggests (p. 85) that the teacher plan exercises for the children to answer factual questions, to find main ideas, to recall sequences of events, to decide the relative importance of statements, to outline, to summarize, to validate statements by looking them up in encyclopedias or reference books to determine their truth or falsity, and to make valid conclusions.

As mentioned before, there were comprehension exercises usually included at the end of each story in the reading book.

Basic reader, 1967. Bold Journeys, Macmillan's 1967 fifth-grade reader, is organized in a manner slightly different from the usual basic reader. Each unit in the book revolves around two themes: a content theme and a reading-skills theme. For example, Unit 2 is "Striking It Rich--Finding Meaning of Words"; Unit 3 is "New Frontiers--Finding Main Ideas." Each unit uses a specific skill which the authors claim is developed in exercises in the pupil's book at the end of each story.

The first unit, "How Writers Use Language," makes use of literal questioning and of sentence and paragraph analysis. It uses "linguistic type" questions: Who made something happen? What happened? To whom did it happen?

Unit two, "Finding Meanings of Words," includes interpretation of ideas, implications, cause and effect.

Unit three, "Finding Main Ideas," explains to children that they must understand which is the main idea and which ideas explain or make clearer the main idea.

"Questioning What You Read," unit four, is considered the unit on critical thinking skills. It is a broad area and covers a wide variety of critical skills such as: drawing conclusions, sorting information, comparing the author's ideas with other ideas, evaluating material, developing an open-minded questioning attitude, learning to recognize loaded words, forming or changing attitudes on the basis of new information, and many others.

The fifth unit, "Developing Study Skills," "is oriented toward analyzing the organization of written material in order to make studying more meaningful and remembering easy [Teacher's Guide, p. 12]." A few of the skills mentioned are: use of index, skimming, map and diagram reading, and using a study plan.

Unit six is "Using All Your Study Skills." It reviews the skills taught in all the previous units.

Actually, each of the units covers skills belonging to other units.

A comparison of the skills listed in this manual with the skills Williams (1959) listed indicates that Bold

Journeys covers 60% of the skills that were covered in 5 or more of the 10 readers Williams examined, and it contains 21 of the 33 listed in all 10 books. Because of the terminology used in the lists of skills, probably more skills duplicate those in other books but are listed in different terms. The authors certainly present an impressive list of skills in the 10 pages necessary for their listing.

My Weekly Reader

The present-day editions of My Weekly Reader contain a Teacher's Edition. Additional background information concerning news items is usually presented for the teacher's benefit. Related maps and pictures may be included.

The suggestions for use with the children are quite similar to those in a Teacher's Edition of a basal text: suggestions for motivation, presentation of vocabulary, guided reading, summarizing the articles, and follow-up activities.

Each weekly edition will present goals appropriate to the articles. These goals concern "news understandings to be gained from study of the story," "social studies generalizations," and "word and concept understandings." Types of culminating questions may vary according to the articles, but there is always a section of discussion

questions entitled "stimulating critical thinking."

Each edition for the student contains a variety of questions, some factual, some inferential, drawing conclusions, evaluating, etc.

Several times a year a Diagnostic Silent Reading Test is given. The stated purpose is to help diagnose four important reading skills:

1. Comprehension of facts
2. Interpretation of facts
3. Discovery of main ideas
4. Discovery of meaning through context.

Examination of Materials

Each basic reader, workbook, and newspaper was examined question by question to determine the types of exercises required or questions asked. These types were listed in columns with page numbers and number of responses (see sample tabulation, Table 1) (see Appendix for complete lists) and totals were obtained to compare numbers and compute percentages. The totals of each subskill column were added. The complete total was then divided, in turn, into each subskill total to determine the percentage for each subskill.

The critical comprehension questions in this study include all questions of a critical or interpretive nature. Included in this are: interpretations, drawing conclusions, summarizing, determining main idea, making evaluations,

TABLE 1

TABULATION SUMMARY SHEET FOR NUMBER OF RESPONSES FOR SUBSKILLS IN MACMILLAN BASIC READER, 1932

Page	Number of responses	Page	Number of responses	Page	Number of responses
Vocabulary		Literal		Critical	
23	15	21-23	15	282-283	3
127	15	40-42	18	321-322	20
283	18	65-66	20	424-426	7
300	10	88-90	18	462	2
387	15	105-106	10	Total	32
Total	73	126-127	12		
		157-159	20	Order of Ideas	
Reference Book Use		192-195	36		
		220-222	18	298-300	12
342	5	254-256	18	Total	12
Total	5	282-283	16		
		321-322	20		
Reading Study Skill		342-343	15		
		363-366	18		
384-387	20	402-403	16		
Total	20	424-426	20		
		448-449	10		
		462	8		
		Total	308		

determining character traits, reacting to sensory words, and any other similar type of question that can be satisfied by paper-and-pencil answers. Application questions that require an evaluation or judgment are included here, too.

A sample list of questions follows in Table 2. These illustrate literal comprehension questions, for which direct answers can be found by the student in the reader or workbook; and critical comprehension questions, where no answers are given directly, but which require the student to infer, interpret meaning, summarize, draw conclusions, interpret attitudes, and so on. The taxonomies of Smith (1969) and Barrett (Robinson, 1968) and the critical reading skills list of Williams (1959) were used to judge the type of questions.

Types of Exercises Included

As listed below, there were eight types of exercises that seemed to be related to teaching or testing of knowledge that could be gleaned from the basic reader or workbook pages. Vocabulary and comprehension questions (numbers 1, 6, and 7 on the following list) were the most pertinent to this study. Consideration of vocabulary was important because--as noted in Chapter II (Williams, 1959) --the emphasis before 1920 had been almost exclusively on word recognition (and oral reading) and it seemed

TABLE 2

SAMPLE QUESTIONS FOUND IN PUPIL MATERIALS

Question	Type	Source
How long did it take to break in the colt?	Literal	Macmillan reader, 1967, p. 459
Tell what happened on these dates May 26, July 4.	Literal	Scott Foresman workbook, 1965, p. 48
When Al Davis was swimming, he could hear voices calling to him from the _____. sloop water restaurant pier	Literal	Macmillan workbook, 1932, p. 32
Probably mountain goats feel safe when they have snow for a background because _____.	Critical: inferring reason	Macmillan workbook, 1932, p. 2
Choose the sentence that best summarizes the main idea of this story. (Five choices given)	Critical: recognizing main idea	Macmillan reader, 1967, p. 461
Underline material in the biographies to show the author's bias for or against a man.	Critical: interpreting attitudes	Scott Foresman workbook, 1965, p. 82

important now to determine whether vocabulary was still emphasized over other areas in the newer materials. However, since some publishers gave great emphasis to some of these other areas (maps, etc.), it seemed necessary to tabulate them, too.

In tabulating responses, as mentioned in Chapter I, each required answer was counted as one response. If a question asked, for example, "Give the reasons why John did not succeed in his mission," an attempt was made to count the reasons given in the reader and to list the number of responses as the number of reasons given. However, if a question said, "Describe John's attitude, . . ." this was counted as one response even though the student might write a paragraph in answering the question.

A page of vocabulary might require 30 short responses (for example, mark the syllables in each word), whereas the same size page--with lengthy instructions or explanations--might cover only five responses of comprehension questioning.

The types of exercises were:

1. Vocabulary--which covered use of dictionary and glossary, alphabetizing, phonics, word meaning, use of context clues, foreign sources of words, synonyms, antonyms, syllablication, affixes, pronunciation, placing words in categories, and rhyming.

2. Map study, graphs, charts, and diagrams.

3. Reading study skills, which included ability to outline.

4. Language study or usage.

5. Reference books usage.

6. Literal comprehension.

7. Critical comprehension.

8. Sequence of ideas (this involved numbering statements in order of their happening. This is a literal comprehension type exercise but requiring more skill than just locating a fact. Therefore it seemed to be separate from literal and critical skills, so it has been omitted from the comprehension total.)

Other areas included in the pupil's materials, but not tallied for the purpose of computing percentages, were:

1. Poetry.

2. Application (the activity type which develops from the material: "Go home and put out a bird feeder").

3. Questions that required answers from the child's own store of knowledge.

The purpose of the study was to consider use of prose material; therefore, poetry was eliminated from the summary sheet and total percentages. The type of application question that asks a child to make something as an

outgrowth of his interest in his reading is not usually related to his comprehension of the selection read; hence, these questions were eliminated. Questions whose answers came from the child's store of knowledge or experience (How many wild animals do you see near your home?) were excluded for the same reason. In short, these three types of exercises seem to stand apart from the eight listed above which have a teaching benefit in them.

Summarizing Findings

After all exercises or questions were listed, a summary chart was prepared for each book. The charts (see Appendix) list in columns the eight types of questions just mentioned, for a tally. However, not every book or workbook contains all eight kinds of exercises, so the number of columns varies. Each column contains each page number on which the exercise is presented and the number of responses required. The number of responses per type have been totaled; total responses of all types have been totaled; and a percentage of the total has been computed for each type.

Responses for the two types of comprehension exercises (literal and critical) have been totaled and percentages determined for each.

After the responses of each book were computed, the total percentage for each type of response was

compared by books: the 1930's edition of a workbook was compared to the 1960's edition for vocabulary, maps, literal, critical, and the other types.[1]

This study thus entailed, for the most part, a drawn-out search for old reading materials and a sizable amount of time devoted to listing every exercise of every page of all materials to determine what types of questions were required of the children, and how the percentages of the types had changed during the 30 years between editions.

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[1]Eight older and six newer pieces of material were used. However, there is no list of questions to compare with the older Scott Foresman reader, for the 1965 book has no questions or exercises at the end of each selection. Neither are there questions or exercises included in the newer Ginn or Houghton Mifflin readers.

CHAPTER IV

FINDINGS AND DISCUSSION

In this study, five basic readers, seven workbooks, and two sets of My Weekly Reader were examined to determine:

Whether there was a change in the amount of responses required for literal comprehension and critical comprehension questions in the 1960's editions from the 1930's editions.

Main Hypotheses

In answer to our basic hypothesis, which states that there will be a decrease in number and percentage of responses for literal comprehension in the 1960 materials and a corresponding increase in number and percentage of responses for critical comprehension in the newer materials, it was found that, among the pupil's materials from all the publishers (except My Weekly Reader), the quantity of all comprehension questions had been increased and percentage of critical questions had been increased in the recent editions. In My Weekly Reader there were fewer total questions in the issues surveyed from the present-day issues, but the percentage of critical questions had

increased over the 1930 percentage.

A reminder of the use of the term question is necessary here. In Chapter I, it was indicated that the number of responses required is implied in the term questions. The number of responses was tabulated, not the actual number of questions.

It must be noted that the increase in percentage of critical questions was due to a large average increase in number of such questions; the average number of literal questions is approximately the same for both decades.

The critical comprehension percentage gains, however, vary from just 10% for My Weekly Reader and Houghton Mifflin materials to 61% for the Macmillan reader. Also, after examining the Scott Foresman and Macmillan materials and learning that the 1960 editions gave over 50% of the questions to the critical side of comprehension, it was surprising to note that although the Ginn, Houghton Mifflin, and My Weekly Reader materials increased their percentage of critical questions, these materials still contain over 50% of literal questions. For example, the 1930's Ginn workbook contained 21% critical questions and their 1960's edition contained 46%, an increase of 25% but still below 50%.

Tables 3 and 4 show a comparison of all materials with regard to percentages of responses (Table 3) and

TABLE 3

COMPARISON OF PERCENTAGES OF RESPONSES FOR LITERAL AND CRITICAL QUESTIONS IN THE OLDER AND THE NEWER MATERIALS AND THE PERCENTAGE GAIN IN QUESTIONS

	Literal (percentage)			Critical (percentage)		
Publisher	1930's	1960's	Gain	1930's	1960's	Gain
Scott Foresman (reader)	57	*		43	*	
Scott Foresman (workbook)	50	33	-17	50	67	17
Macmillan (reader)	91	30	-61	9	70	61
Macmillan (workbook)	91	45	-46	9	55	46
Ginn (reader)	67	*		33	*	
Ginn (workbook)	79	54	-25	21	46	25
Houghton Mifflin (reader)	68	*		32	*	
Houghton Mifflin (workbook)	**	58		**	42	
My Weekly Reader	73	63	-10	27	37	10
Mean	72	47	-32	28	53	32

*No questions available in this edition.

**No material could be located.

TABLE 4

COMPARISON OF NUMBERS OF RESPONSES FOR LITERAL AND CRITICAL QUESTIONS IN THE OLDER AND THE NEWER MATERIALS AND THE NUMERICAL GAIN IN QUESTIONS

Publisher	Literal (numerical)			Critical (numerical)		
	1930's	1960's	Gain	1930's	1960's	Gain
Scott Foresman (reader)	225	*		167	*	
Scott Foresman (workbook)	185	209	24	185	421	236
Macmillan (reader)	308	202	-106	32	464	432
Macmillan (workbook)	300	197	-103	29	243	214
Ginn (reader)	42	*		21	*	
Ginn (workbook)	363	369	6	98	309	211
Houghton Mifflin (reader)	268***	*		128***	*	
Houghton Mifflin (workbook)	**	244		**	175	
Mean	242	244	- 45	96	322	273
My Weekly Reader (6 editions)	87	44	- 43	32	26	- 6
Mean	222	211	- 44	87	273	217

*No questions contained in this book.

**No workbook could be located.

***This number is projected from a count of one-half of the book.

number of responses (Table 4).

A similar comparison of all findings is presented in the following figures. Figures 1 and 2 compare percentages and numbers of literal comprehension responses for the two decades. Figures 3 and 4 make similar comparisons for critical comprehension.

Presentation of Data

As previously mentioned in Chapter II, an early criticism of the teaching of reading was the emphasis on vocabulary skills to the exclusion of comprehension. The quantity of responses required for vocabulary is therefore specifically mentioned in describing each piece of material as well as the quantity of literal comprehension responses versus critical comprehension responses.

Scott Foresman Materials

Basic reader, 1931. The subskills included in this compilation are shown in Table 5. Vocabulary responses account for a small percentage of the total responses, and this trend is evident in the comparable workbook of 1934. Although there are more literal comprehension responses than critical comprehension responses, there is a surprisingly high percentage of critical skills tested by Scott Foresman at this early date.

There are no comparisons to be made with the

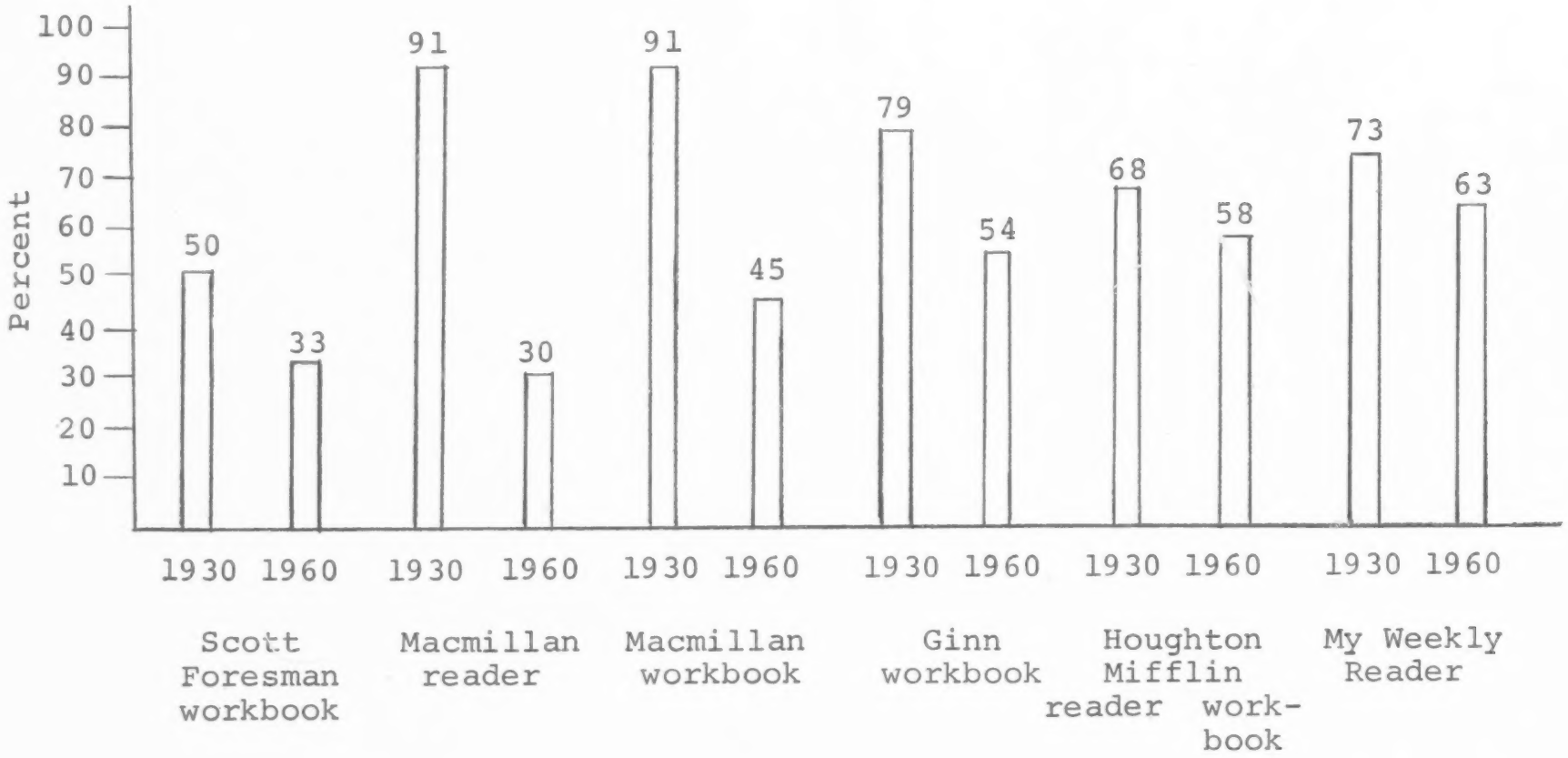

Fig. 1. Comparison of percentages of literal responses in the 1930 and 1960 materials.

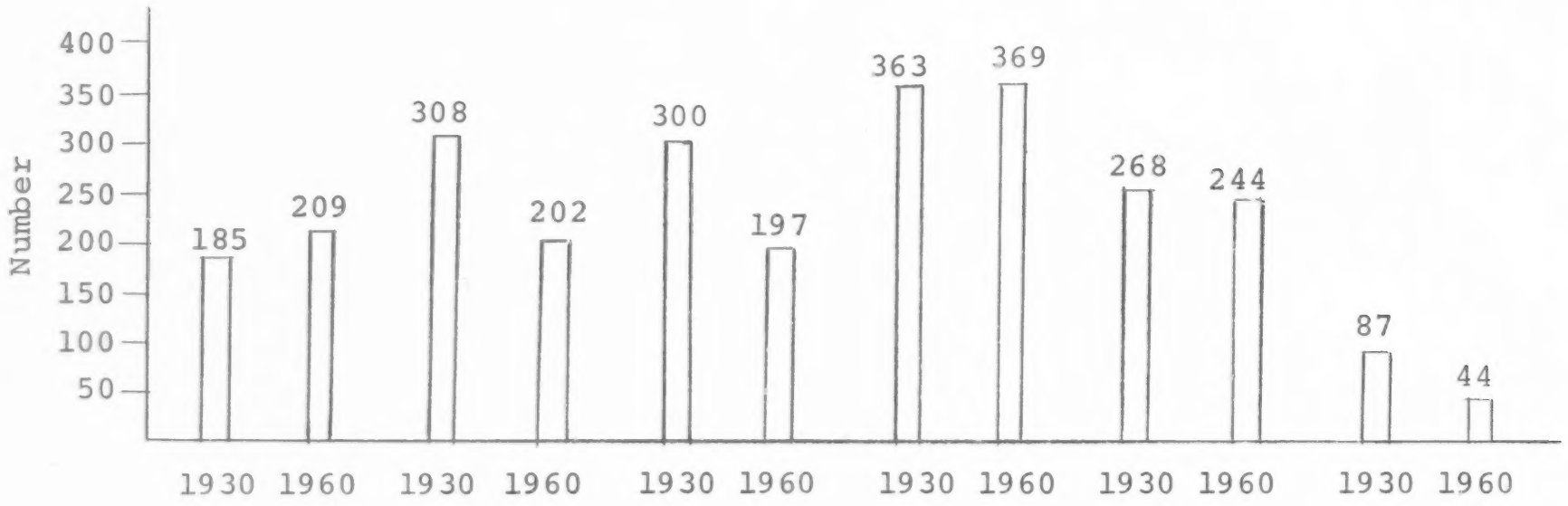

Fig. 2. Comparison of numbers of literal responses in the 1930 and 1960 materials.

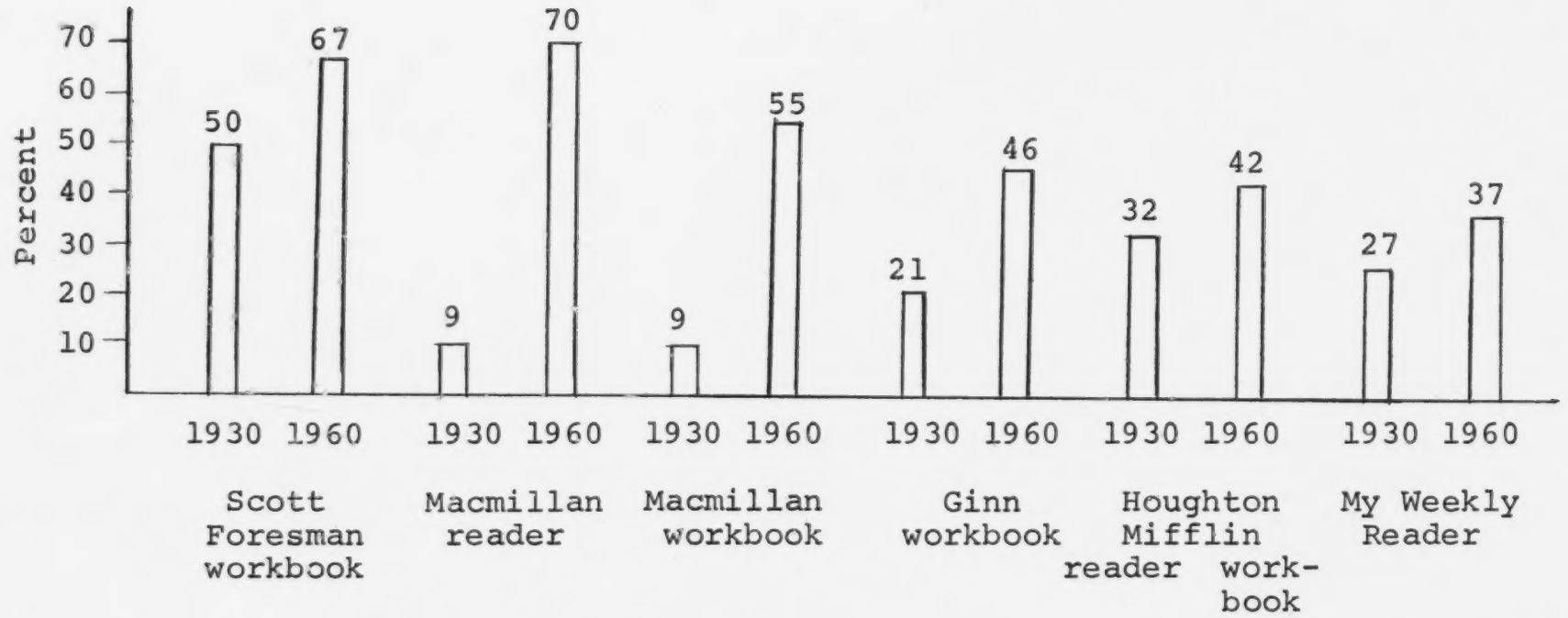

Fig. 3. Comparison of percentages of critical responses in the 1930 and 1960 materials.

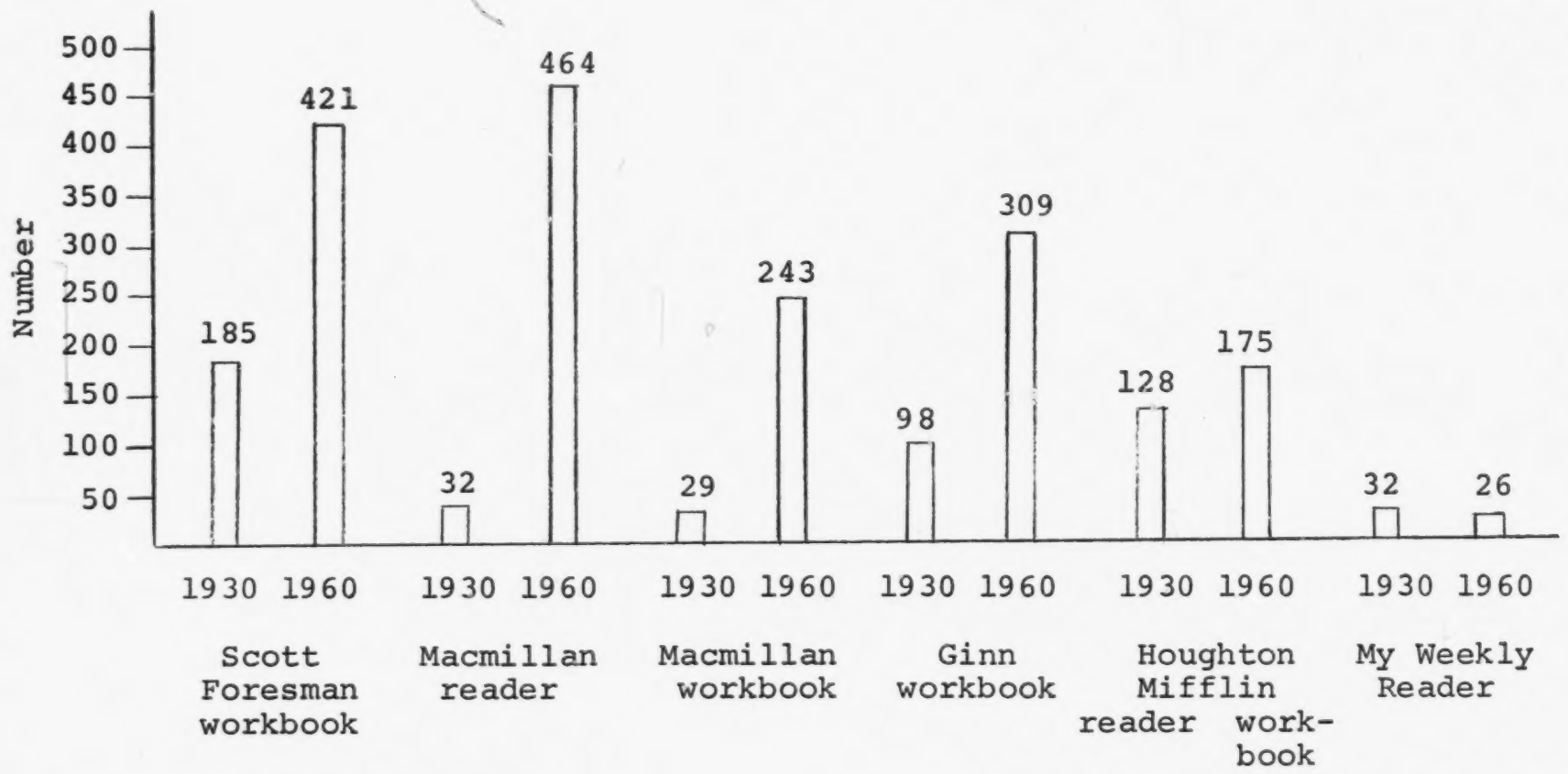

Fig. 4. Comparison of numbers of critical responses in the 1930 and 1960 materials.

TABLE 5

NUMBER OF RESPONSES AND PERCENTAGES FOR SUBSKILLS IN THE 1931 SCOTT FORESMAN READER

Skill	Number of responses	Percentage of total	Percentage of comprehension only
Vocabulary	39	8	
Maps	9	2	
Order of ideas	23	5	
Literal comprehension	225	49	57
Critical comprehension	167	36	43
Total	463	100	100

Basic Reader of 1931, because the 1965 edition of the reader does not contain questions following the stories in that reader.

Scott Foresman workbook, 1934. The data from this workbook were compiled in number of pages devoted to each area of exercises rather than number of responses required. This was done in this way because, in many cases in the areas of vocabulary, maps, reading study skills, and use of reference books, it was often difficult to assign a "number of responses"[1] to particular exercises. For example, on exercise page 17,[2] the student is assigned to "make up an outline for another story."

However, it was possible to count the actual number of responses for literal comprehension and critical comprehension questions. This was fortunate because this is the important area to be compared with the present-day materials.

The areas included for the tally in this workbook are shown in Table 6.

Again, as in the 1931 Scott Foresman reader, vocabulary responses account for a very small percentage

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[1]This is the only piece of material in this study to be recorded by percentages of pages. All others are counted by actual number of responses.

[2]The Extension Reading Workbook is organized by numbers of exercises rather than by page numbers. Some exercises cover two or more pages.

TABLE 6

NUMBER OF RESPONSES AND PERCENTAGES FOR SUBSKILLS IN THE 1934 AND THE 1965 SCOTT FORESMAN WORKBOOK

Skill	Number of pages 1934*	Number of responses		Percentage of total		Percentage of comprehension only	
		1934	1965	1934	1965	1934	1965
Vocabulary	8	479		7	41		
Maps	3	18		3	1		
Reading study skills	8			7			
Reference books	26			24			
Order of ideas		50			4		
Literal comprehension	27	185	209	24	18	50	33
Critical comprehension	38	185	421	35	36	50	67
Total	110	370	1177	100	100	100	100

*Responses for the 1934 workbook were counted by pages rather than actual responses.

of total responses. Because of the emphasis on vocabulary in that decade, this finding would not normally be anticipated. It appears that in the early issues of that new material, the workbook, the authors were putting most of their emphasis on comprehension areas.

As mentioned before, the total number of responses was not possible for all types of exercises; therefore, Table 6 shows percentages of pages for 1934 subskills. This resulted in critical questions taking up more space than literal ones. However, in the next column of Table 6, comprehension questions were tabulated by actual number of responses. The literal and the critical questions were allotted an equal share--185 responses each. The reader and the workbook of this decade both indicate the author's concern for critical reading skills.

Scott Foresman workbook, 1965. The areas included in this tally are also shown in Table 6. It is interesting to note that vocabulary responses numbered 479, more than either of the comprehension areas, and represented 41% of total responses. This was a big change from the 1934 workbook, where vocabulary represented only 7% of responses. Although the 1934 workbook had required an equal number (and percentage) of literal and critical responses, the 1965 edition increased the number of

critical responses required so that this area now is twice as large as the literal area.

Macmillan Materials

Basic reader, 1932. Table 7 lists subskills for this reader. Vocabulary accounts for only 16% of the total responses but is second in number and percentage to literal comprehension. A very small number of responses is required for critical comprehension in comparison to literal comprehension.

Basic reader, 1967. This reader is also illustrated in Table 7. The number of vocabulary responses is approximately two and one-half times the number in the 1932 reader but still accounts for the same percentage of total responses. A radical change can be noted here in the percentages of the literal and critical areas of comprehension. The number of responses for literal comprehension questions has been cut by one-third from the 1932 reader but still numbers 202. The large increase in number of critical responses in the newer reader accounts for the radical shift in percentages--the 1967 reader has 14 times as many critical responses as the 1932 reader.

Macmillan workbook, 1932. Vocabulary in this workbook accounts for approximately one-half of the required responses. As in the Macmillan reader of 1932, the comprehension emphasis was centered on literal

TABLE 7

NUMBER OF RESPONSES AND PERCENTAGES FOR SUBSKILLS IN THE 1932 AND THE 1967 MACMILLAN READER

Skill	Number of responses		Percentage of total		Percentage of comprehension only	
	1932	1967	1932	1967	1932	1967
Vocabulary	73	191	16	17		
Reference books	5		1			
Reading study skills	20	138	4	12		
Order of ideas	12	14	3	1		
Maps		44		4		
Language study		88		8		
Literal comprehension	308	202	69	18	91	30
Critical comprehension	32	464	7	40	9	70
Total	450	1141	100	100	100	100

questions. It is of interest to note that the 1932 percentages were identical in both reader and workbook--literal comprehension 91% and critical comprehension 9%.

Macmillan workbook, 1967. Again, vocabulary accounts for almost one-half of the subskill responses, but it must be noted that the number of vocabulary responses is nearly double those in the 1932 workbook. There are so many subskills in this workbook that comprehension represents only one-third of total responses. However, considering comprehension alone, critical comprehension accounts for 55% and literal comprehension for 45%. This is again, as in the comparison between the two Macmillan readers, a radical shift from the small number of critical responses in 1932. Table 8 illustrates the tabulation for these workbooks.

Ginn Materials

Two pieces of material for Ginn and Company were located for the 1930's, a 1932 reader and a 1931 workbook. These are compared with the Ginn workbook of 1961. There were no questions in the 1961 edition of the basic reader.

Basic reader, 1932. There was a relatively small number of questions in this book (63 comprehension questions in all) and they called for twice as many literal comprehension responses as critical responses.

Ginn workbook, 1931. This workbook has an even

TABLE 8

NUMBER OF RESPONSES AND PERCENTAGES FOR SUBSKILLS IN THE 1932 AND THE 1967 MACMILLAN WORKBOOK

Skill	Number of responses		Percentage of total		Percentage of comprehension only	
	1932	1967	1932	1967	1932	1967
Vocabulary	329	625	48	46		
Maps	20	59	3	4		
Order of ideas	12	19	2	1		
Reading study skills		44		3		
Language study		136		10		
Reference books		38		3		
Literal comprehension	300	197	43	15	91	45
Critical comprehension	29	243	4	18	9	55
Total	690	1361	100	100	100	100

larger gap (than the reader) between literal and critical comprehension responses. There are almost four times as many literal responses required as there are critical responses.

Vocabulary was given more emphasis in this material than in the Scott Foresman workbook but less than in the Macmillan workbook for this decade.

Ginn workbook, 1961. This workbook contains an amazing number of vocabulary questions--2,020 responses required. This is the largest number for any material examined and indicates the highest percentage increase between the two decades.

In the area of comprehension, an almost equal emphasis is given to literal and critical comprehension. However, more responses are still required for literal comprehension.

Table 9 illustrates the Ginn materials.

Houghton Mifflin Materials

The only Houghton Mifflin material that could be located for the 1930's was a sixth-grade reader. A sixth-grade workbook (1966) was used for comparison. There are no questions in the 1966 reader.

Basic reader, 1929. Most of the exercises following the chapters in this book are comprehension questions. These are the only questions that are relevant to this

TABLE 9

NUMBER OF RESPONSES AND PERCENTAGES FOR SUBSKILLS IN THE 1932 GINN READER AND THE 1931 AND THE 1961 GINN WORKBOOKS

Skill	Number of responses			Percentage of total			Percentage of comprehension only		
	Reader	Workbook		Reader	Workbook		Reader	Workbook	
	1932	1931	1961	1932	1931	1961	1932	1931	1961
Vocabulary		127	2020		21	69			
Table of contents		20			3				
Reference			112			4			
Study skills			21			1			
Maps			62			2			
Order of ideas			39			1			
Literal comprehension	42	363	369	67	60	12	67	79	54
Critical comprehension	21	98	309	33	16	11	33	21	46
Total	63	608	2932	100	100	100	100	100	100

study. Because of similarity of the format at the end of each story, a sampling was taken for this book. This consisted of counting all questions from the first half of the book and doubling the numbers. Like most of the other early readers and workbooks (except those of Scott Foresman), a much greater emphasis was given to literal comprehension than to critical comprehension. In this reader there were twice as many literal responses required as critical responses.

Houghton Mifflin workbook, 1966. Because the 1929 material contained no vocabulary questions, no comparison can be made between the two Houghton Mifflin materials. However, in comparison to the other three 1960's workbooks studied, the Houghton Mifflin workbook requires the least number of vocabulary responses. Table 12 and Figures 5 and 6 compare vocabulary responses in the various materials.

Critical comprehension is given more emphasis in the 1966 workbook than in the 1929 reader, but it still accounts for only 42% of the comprehension responses. Of the four basic reading series studied, Houghton Mifflin has the smallest percentage of workbook responses allotted to critical comprehension in the 1960 materials. Likewise, the critical comprehension percentage gain from the earlier material is less than for any of the other

series.

Table 10 illustrates Houghton Mifflin materials.

My Weekly Reader

This publication (past and present) includes exercises in the following areas: vocabulary, maps, literal comprehension, critical comprehension, related activities, and crossword puzzles. For purposes of comparison of percentages, maps are omitted because the map study has often been presented as part of the teaching within the news article; related activities and crossword puzzles were likewise omitted from the percentage computation.

Six issues from each decade were used for this study.

1. Issues from the 1930's. Vocabulary accounts for one-third of the responses in these issues. There are approximately three times as many responses required for literal comprehension as for critical comprehension.

2. Issues from the 1970's. In these issues, vocabulary responses account for 25% of the total. There is a greater emphasis on the critical area of comprehension than in the 1930's editions, but there are still nearly twice as many literal responses required as critical responses.

While My Weekly Reader does not show as large a gain in critical comprehension as the other reading

TABLE 10

NUMBER OF RESPONSES AND PERCENTAGES FOR SUBSKILLS IN THE 1929 HOUGHTON MIFFLIN READER AND THE 1966 HOUGHTON MIFFLIN WORKBOOK

Skill	Number of responses		Percentage of total		Percentage of comprehension only	
	1929	1966	1929	1966	1929	1966
Vocabulary		398		30		
Maps		72		5		
Reference books		166		13		
Study skills		215		16		
Order of ideas		40		3		
Literal comprehension	268*	244	68	19	68	58
Critical comprehension	128*	175	32	14	32	42
Total	396	1310	100	100	100	100

*These numbers are a projected total obtained from a sampling of one-half of the book.

materials studied, it still indicates a significant change toward that area. Because of the size and format of this weekly newspaper, it seems that the proportion of vocabulary, literal comprehension, and critical comprehension exercises is a very suitable one. It is always necessary to be sure that vocabulary and facts are understood in news articles before entering the critical areas. There is not space available (as there is in a workbook or basic reader) for an abundance of additional questions.

The findings for My Weekly Reader are shown in Table 11.

3. Weekly Reader Diagnostic Test Forms 5K, 5J (1970-71). This test is included several times each year in the weekly paper. There are 14 paragraphs in the test. Each paragraph is followed by four questions: (1) comprehension of facts, (2) interpretation of facts, (3) discovery of main ideas, and (4) discovery of meaning through context. Therefore, each question has a weight of 25%, and considering just comprehension questions, 67% are allotted to critical and 33% to literal responses.

Vocabulary Responses

A minor part of this study is to examine vocabulary responses to determine whether there is a difference in number and percentage of responses in the 1930 pupil materials when compared with the 1960 materials.

TABLE 11

NUMBER OF RESPONSES AND PERCENTAGES FOR SUBSKILLS IN SIX ISSUES FROM THE 1930'S AND IN SIX ISSUES FROM 1970 OF MY WEEKLY READER

Skill	Number of responses		Percentage of all responses		Percentage of comprehension	
	1930's	1970	1930's	1970	1930's	1970
Vocabulary	57	24	33	25		
Literal comprehension	87	44	49	47	73	63
Critical comprehension	32	26	18	28	27	37
Total	176	94	100	100	100	100

Number of responses were greatly increased in the newer materials; the increase in the Ginn workbook is responsible for the large mean increase. However, the newer workbooks are generally much thicker books than those of the 1930's and all types of exercises have been increased in number. Therefore, the percentage of increase is not consistent. The Scott Foresman workbook and the Ginn workbook show a large increase in percentage of vocabulary, while the Macmillan materials contain approximately the same percentage of vocabulary. Table 12 and Figures 5 and 6 show the vocabulary comparisons.

Discussion

In the Teachers' Editions of the newer Scott Foresman materials, the Macmillan materials, and My Weekly Reader, as discussed in Chapter III, a description of the skills indicates the authors' purposes in including more critical comprehension questions in these materials. The skills are explained in more specific detail than in the older materials. This explanation is reflected in the specific aims noted in the workbooks and readers.

All newer materials (except My Weekly Reader) increased in number of responses required for all subskills. The newer Scott Foresman and Ginn workbooks greatly increased the number and percentage of vocabulary. It appears that the early editions of workbooks (except

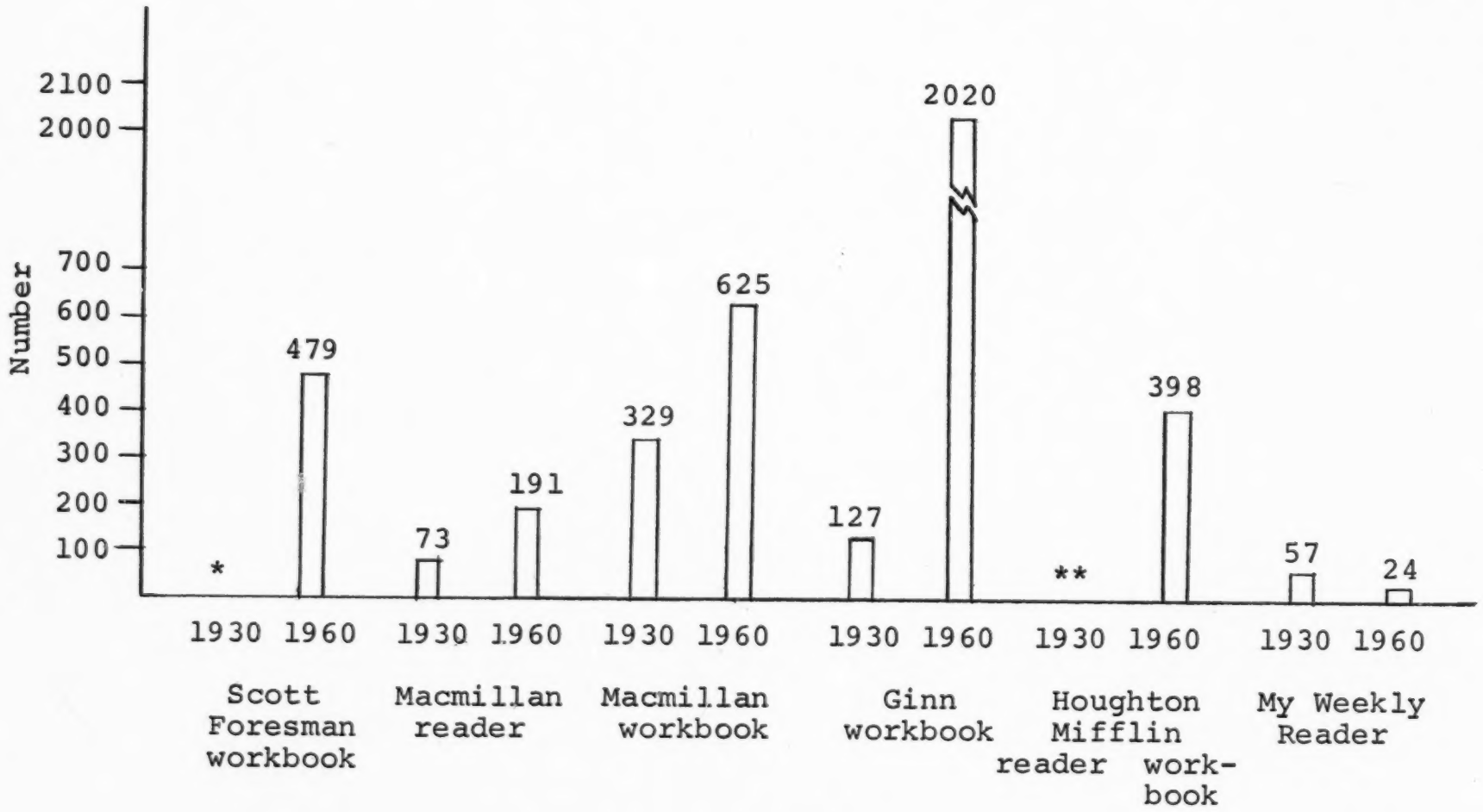
TABLE 12

COMPARISON OF NUMBER AND PERCENTAGE OF RESPONSES FOR VOCABULARY IN THE OLDER AND NEWER MATERIALS AND THE INCREASE IN NUMBER AND PERCENTAGE

	Number of responses			Percentage of responses		
Publisher	1930's	1960's	Increase	1930's	1960's	Increase
Scott Foresman (reader)	39	*		8	*	
Scott Foresman (workbook)	**	479		7	41	34
Macmillan (reader)	73	191	118	16	17	1
Macmillan (workbook)	329	625	296	48	46	- 2
Ginn (reader)	*		*			
Ginn (workbook)	127	2020	1893	21	69	48
Houghton Mifflin (reader)	*		*			
Houghton Mifflin (workbook)		398			30	
Total	568	3713	2307	100	203	81
Mean	142	743	769	20	41	20
My Weekly Reader	57	24	- 33	33	25	- 8
Mean	125	623		22	38	15

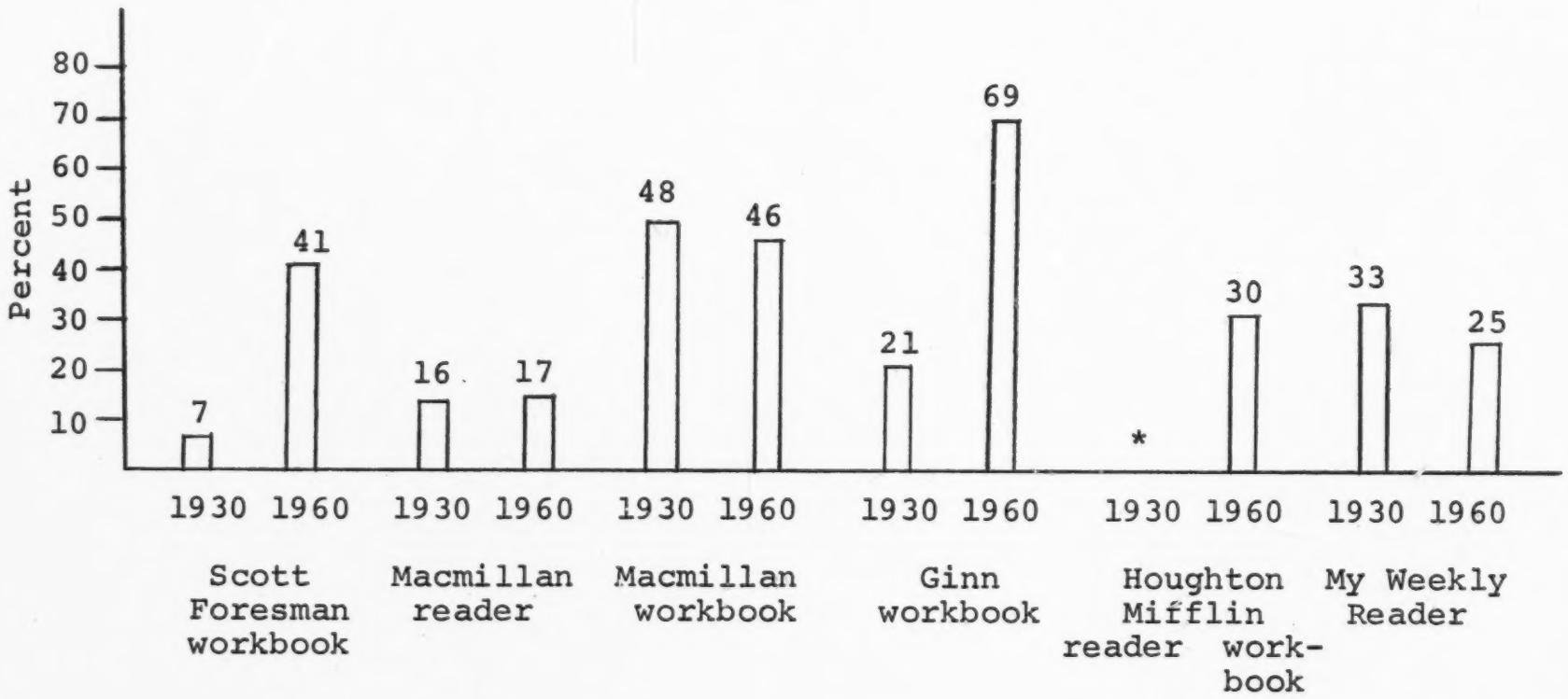
*No questions in this book.

**This was counted by pages rather than response numbers.



*Not counted by actual number of responses.
**No questions in this book.

Fig. 5. Comparison of numbers of vocabulary responses in the 1930 and 1960 materials.



*No questions in this book.

Fig. 6. Comparison of percentages of vocabulary responses in the 1930 and 1960 materials.

for Macmillan) leaned heavily in the comprehension direction and later adjusted this balance by adding much more vocabulary material. The emphasis in the readers has always been in the comprehension area.

There is no consistent pattern for the other subskills (maps, study skills, and others)--some companies included a skill in the old edition and not in the new, or included a skill in the new and not in the old. This seems to indicate that vocabulary, literal comprehension, and critical comprehension questions are considered the essential areas by all authors.

Thus we see in the 1930 editions a much higher proportion of literal questions than critical questions, and in the 1960 editions an increase in the critical questions. However, the increase in critical comprehension varies--My Weekly Reader and Houghton Mifflin materials increased critical comprehension by a modest 10% and still include more literal comprehension than critical; Macmillan materials showed an extremely high increase in critical comprehension to 70%; Scott Foresman authors continued their recognition of the importance of critical comprehension by increasing this area to 67%; Ginn materials show a rather large critical comprehension increase, but still require more than 50% literal responses.

The results seem to indicate that the criticism

by the reading authorities concerning the emphasis on literal comprehension in children's reading materials was heard and heeded. The percentages in the older editions contained a large majority of literal questions; the newer editions have made a shift in the other direction.

As Williams (1959) indicated (Chapter II of this study), the new materials "have been provided to offer systematic guidance in development of essential thinking skills [p. 329]."

As illustrated in Chapter II (Robinson, 1968; Smith, 1969; Stone, 1926), it is possible to compile the skills covered by critical reading questions in a compact list. The teachers' guides to the 1930 readers did just that. The newer materials that contain the larger percentage of critical questions, however, have accompanying teachers' guides which devote many pages to listing and describing the skills. It seems that it should be possible to condense the lists to a concise, manageable number.

This study is a quantitative study--not a qualitative one; the comparison is between the number of literal and critical questions, not how well these questions are presented. It may be, in some instances, that the fewer questions require a higher degree of thinking than the larger volume of questions.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study compared types of comprehension questions used in children's reading materials published in the 1930's with reading materials published in the 1960's. The question raised was:

Is there a difference in the amount of responses required for literal comprehension questions and critical comprehension questions in the newer materials of the 1960's when compared with the older materials of the 1930's?

To answer the question, the following hypotheses were proposed:

1. There will be a significant decrease in the number and percentage of responses for literal comprehension in 1960 pupil reading materials when compared with the 1930 pupil materials.

2. There will be a significant increase in the number and percentage of responses for critical comprehension in 1960 pupil reading materials when compared with the 1930 pupil materials.

A minor question investigated in the study was:

Is there a difference in the number and percentage of vocabulary responses in the 1930 pupil materials when compared with the 1960 pupil materials?

Writings of reading authorities such as Smith, Stone, Gates, Robinson, Gray, Harris, and Huey were reviewed to determine what they felt were the necessary aspects of reading comprehension (what types of questions should be asked). The teachers' guidebooks (of the readers used) were examined to ascertain what the authors claimed they were testing in comprehension in their readers and workbooks.

Four sets of basic readers were chosen for the study: the Scott Foresman, Macmillan, Houghton Mifflin, and the Ginn series. My Weekly Reader was also chosen to represent a pupil's periodical. Materials from each publisher were located for the 1930's and for the 1960's.

Every question of every page of a reader, workbook, and news weekly was examined and a chart was made for each book (workbook and newspaper) for each of the two decades studied. A summary of types of required responses was tabulated and percentages of responses of each type (vocabulary, literal comprehension, critical comprehension, and the others) of the total responses were found. Then percentage increases (or decreases) were computed.

The response percentages that were most pertinent

for comparison in this study were those for literal and critical questions. The vocabulary percentage was also considered an important one because of the historical criticism of the overemphasis on vocabulary to the detriment of comprehension.

Findings

The findings represent substantial increases in the 1960's materials in the responses required for critical comprehension when compared with the 1930's materials. The authors' concern for critical comprehension was evident in the early Scott Foresman workbook. Therefore, the percentage gain in the newer material is not very great but the new percentage of critical comprehension is very high (67%) when compared with the other pupil materials. The newer Macmillan reader shows the greatest increase in critical comprehension of all the materials studied. The increase is from 9% to 70%. This gain seems extreme until we examine the small number and percentage of critical questions in the earlier edition. A large percentage gain is also evident in the Macmillan workbook.

Numerical and percentage gains in critical comprehension are shown also in the Ginn and Houghton Mifflin materials. The percentage gains are not so great as for Scott Foresman and Macmillan, and literal comprehension still accounts for over 50% of comprehension questions.

The actual number of critical questions in the newer Ginn workbook, however, is much larger than in the newer Macmillan workbook. The Houghton Mifflin workbook has the smallest numerical and percentage gains of all the basic reading materials. In this newer workbook a heavy emphasis is placed on areas such as use of reference books and study skills (outlining). While these skills are separate from critical comprehension, they do bear a relationship to that area.

My Weekly Reader (1970) shows a small but significant gain in critical comprehension. As explained before, a newspaper of this size would not contain space for a large amount of questions.

A change in number of critical comprehension and literal comprehension responses was anticipated. Interestingly, while the number of critical responses did increase, and thereby raised the percentage, the average number of literal responses remained approximately the same.

There was in general a significant increase in the newer materials in number of responses in all subskills indicating the need for more independent practice for the student. The average total number of all workbook responses in the 1930's was 649; in the 1960's it was 1,748.

Vocabulary in the Scott Foresman workbook made a large percentage gain in the more recent edition. This undoubtedly reflected an inadequate amount of practice given in the earlier edition.

Vocabulary accounts for over 40% of the responses in both Scott Foresman and Macmillan 1960's workbooks and almost 70% in the newer edition of Ginn. This seems to indicate that although all publishers increased their emphasis on critical comprehension, they are not sacrificing word study in so doing. In the newer Ginn workbook the number of vocabulary responses increased to 2,020.

Conclusions Regarding Hypotheses

The first hypothesis (there will be a significant decrease in the number and percentage of responses for literal comprehension in 1960 material) was found to be true in percentage but false in number. The average percentage of literal responses decreased from 72% to 47%. The average number of responses for all materials, however, remained approximately the same for both decades.

Hypothesis number two (there will be a significant increase in number and percentage of responses for critical comprehension in 1960 materials) proved to be true in both respects. The mean percentage gain was found to be 32%, and the mean gain in responses was 217.

These changes were significant because they met

the criteria of 25% as defined on page 3 of this study.

The question was raised--is there a difference in the number and percentage of vocabulary responses in the 1930 and 1960 materials? There was an average increase in number of responses for all newer materials. The newer Ginn workbook had an extremely large gain. There was a mean gain of 20% in the materials. However, this average percentage was adversely affected by a -1% increase in Macmillan materials.

It is not just the proportion of literal questions versus critical questions that has changed since the 1930's. More specific aims are stated in the newer materials to acquaint the teacher with the purpose of the critical questions. In the older materials, when critical questions were given, there often was no purpose stated to show what type of thinking or skill was being employed to answer the question.

In spite of the heavy emphasis that reading authorities have placed on critical comprehension, however, it is surprising that 50% of the questions tabulated were still literal questions.

Suggestions for Further Study

Inasmuch as this study was limited to a comparison of four basic reading systems, it would be interesting to make the same comparison between two or more others. It

would also be of interest to tabulate the types of comprehension questions in the new materials--materials which are based on linguistic principles.

A third suggestion for a new study would be to evaluate the critical type questions to see whether they are valuable in meeting the comprehension goals they purport to accomplish. And this would be a most difficult task to evaluate qualitatively. This study is necessarily a quantitative, not a qualitative one. Therefore, it brings us to the humble realization that we have not proved the newer books to have better quality critical comprehension questions--we have merely found that they have more.

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APPENDIX

SUMMARY SHEETS SHOWING THE ACTUAL PAGE-BY-PAGE COUNT OF ALL RESPONSES REQUIRED IN THE PUPIL'S MATERIALS

Scott Foresman Reader, 1931
Scott Foresman Workbook, 1934
Scott Foresman Workbook, 1965
Macmillan Reader, 1932
Macmillan Reader, 1967
Macmillan Workbook, 1932
Macmillan Workbook,, 1967
Ginn Reader, 1932
Ginn Workbook, 1931
Ginn Workbook, 1961
Houghton Mifflin Reader, 1929
Houghton Mifflin Workbook, 1966
My Weekly Reader, 1930's Editions
My Weekly Reader, Current Editions

TABULATION SUMMARY SHEET #1 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN SCOTT FORESMAN READER, 1931

Page	Number of responses
Vocabulary	
25	8
59	9
88	5
125	12
207	5
Total	39
Maps	
49	9
Total	9
Order of Ideas	
49	8
163	6
300	9
Total	23

Page	Number of responses
Literal	
25	18
32	3
59	7
73	1
83	6
88	13
98	5
103	15
109	4
125	3
188	12
207	7
222	8
240	13
250	8
261	10
273	4
284	19
291	11
300	14
305	12
330	8
355	9
387	9
413	2
422	3
429	1
Total	225

Page	Number of responses
Critical	
32	1
49	6
73	6
93	5
98	1
103	2
109	2
125	8
147	8
163	4
188	13
198	6
207	6
218	16
222	2
240	10
250	7
273	3
284	1
305	1
330	11
355	21
387	7
401	6
413	8
422	1
429	6
Total	167

TABULATION SUMMARY SHEET #2 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN SCOTT FORESMAN WORKBOOK, 1934

Page	Page	Page	Number of responses	Page	Number of responses
Vocabulary	Reference Books	Literal		Critical (continued)	
		1	3		
2		8	8	33	7
3	1	14	19	34	5
27	4	16	5	35	10
30	5	17	2	38	1
42	6	18	2	39	4
51	8	22	1	40	8
57	10	28	3	41	6
66	18	38	7	43	6
8 pp.	21	46	4	44	2
	32	50	3	45	6
Maps	38	51	5	48	3
	41	53	4	49	1
19	46	57	5	51	3
47	48	59	13	52	5
58	49	62	12	53	6
3 pp.	50	65	10	56	14
	52	67	6	59	5
Reading Study Skills	54	68	24	60	8
	55	69	9	63	4
	57	70	4	64	1
	61	72	7	65	1
17	62	76	2	68	3
20	77	77	11	69	14
21	81	81	6	70	3
22	82	84	5	72	3
37	83	85	5	74	9
45	86	Total	185	75	7
61	26 pp.			76	5
78		Critical		77	1
8 pp.				78	3
		8	3	80	4
		12	3	81	1
		16	2	82	6
		25	5	85	3
		28	3	Total	185
		32	1		

Note: Numbers for vocabulary, maps, reading study skills, and reference books are for number of pages. Numbers for literal and critical are actual number of responses.

TABULATION SUMMARY SHEET #3 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN SCOTT FORESMAN WORKBOOK, 1965

Page	Number of responses
Vocabulary	
4	16
10	19
13	21
20	16
24-25	4
26-27	14
31	12
42	8
52-53	4
56	13
61	14
65	18
67	20
74-75	19
78	75
87	16
88	14
90	18
91	24
95	33
99	14
112	21
113	11
121	17
124	18
Total	479
Maps	
79	18
Total	18

Page	Number of responses
Order of Ideas	
5-7	9
24-25	6
26-27	5
32-33	10
62-64	10
104-106	10
Total	50
Literal	
2-3	13
8-9	8
14-15	12
17	7
18-19	4
26-27	3
28-30	16
44-45	23
46-48	8
50-51	25
52-53	2
54-55	3
60	5
68-69	8
70-73	15
76-77	18
83	12
97-98	1
108-109	6
114	3
116	1
118-119	3
122-123	13
Total	209

Page	Number of responses
Critical	
5-7	2
11	7
12	16
16	23
21-23	10
24-25	3
26-27	15
34	4
35-39	21
40	3
41	10
46-48	1
49	8
52-53	12
54-55	2
57-59	13
62-64	20
66	12
68-69	4
70-73	5
74-75	8
80-82	26
84-86	26
89	7
92-94	12
96	5
97-98	4
100	22
101-102	13
103	16
107	11
108-109	3
110	12
111	16
113	15
115-116	8
117	6
118-119	3
120	16
122-123	1
Total	421

TABULATION SUMMARY SHEET #4 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN MACMILLAN READER, 1932

Page	Number of responses
Vocabulary	
23	15
127	15
283	18
300	10
387	15
Total	73
Reference Books	
342	5
Total	5
Reading Study Skills	
384-387	20
Total	20

Page	Number of responses
Literal	
21-23	15
40-42	18
65-66	20
88-90	18
105-106	10
126-127	12
157-159	20
192-195	36
220-222	18
254-256	18
282-283	16
321-322	20
342-343	15
363-366	18
402-403	16
424-426	20
448-449	10
462	8
Total	308

Page	Number of responses
Critical	
282-283	3
321-322	20
424-426	7
462	2
Total	32
Order of Ideas	
298-300	12
Total	12

TABULATION SUMMARY SHEET #5 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN MACMILLAN READER, 1967

Page	Number of responses
Vocabulary	
96-98	43
104-105	30
122-124	12
131	8
140	8
154	23
155	21
188	4
216	6
244	6
280	4
317	2
447	24
Total	191
Maps	
57-59	7
162	5
373-376	13
394	7
491	4
492	8
Total	44
Language Study	
22	4
23	6
24	5
40-41	23
49	7
157	19
434	14
436	10
Total	88
Order of Ideas	
103	4
213	10
Total	14
Literal	
16	6
21	4
39	5
63	7
74	20
95	7
129-130	9
138	11
152	1
176	13
186	12
188	9
198	1
213	6
228	6
242-243	8
261	1
262	10
291	2
321	4
356	3
371	5
383	5
393	6
402	7
420	14
459	7
500	13
Total	202
Critical	
8	6
9	5
22	3
39	6
46	10
47	9
95	5
103	10
120	5
121	5
138	6
152	7
162	5
164	1
176	1
179	4
186	2
198	4
213	4
214-216	9
228	2
229	8
233	4
243-244	6
261	11
262	9
280	9
281	9
282	7
292	13
293-294	12
299	10
317	15
318	2
319	5
320	18
321	9

(continued)

TABULATION SUMMARY SHEET #5 (continued)

Page	Number of responses	Page	Number of responses	Page	Number of responses
Critical (continued)		Critical (continued)		Reading Study Skills	
330	24	420	5	80-82	6
332	13	434	11	199-200	7
338	5	445-446	21	230	8
339	5	459	7	358-359	6
356	5	461	1	371	12
357	3	477	8	385-386	5
368	16	478	13	394	16
369	4	479	4	406	11
370	10	480	15	420	6
383	1	492	4	437	8
384	8	500	1	460	14
385	12	Total	464	483-484	17
393	3			491	4
402	1			501	18
403	8			Total	138

TABULATION SUMMARY SHEET #6 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN MACMILLAN WORKBOOK, 1932

Page	Number of responses	Page	Number of responses	Page	Number of responses
Vocabulary		Literal		Critical	
6	15	2	11	2	1
8	24	7	10	12	5
10	36	11	12	14	1
13	14	14	8	17	4
18-19	27	16	16	34	2
26	3	21	12	36	3
29	22	23	12	46	5
31	20	26	9	47	1
34	2	27	9	62	2
35	20	28	18	67	2
39-40	11	32	15	68	3
43	10	34	4	Total	29
44	10	37	12		
48	12	38	10	Order of Ideas	
51	24	47	11		
53	40	50	12		
70	5	52	6	42	12
60-61	16	54-55	7	Total	12
64	18	56	15		
Total	329	58	12		
		60-61	18		
Maps		62	2		
		63	12		
9	10	66	12		
24	10	68	15		
Total	20	69	10		
		70	10		
		Total	300		

TABULATION SUMMARY SHEET #7 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN MACMILLAN WORKBOOK, 1967

Page	Number of responses
Vocabulary	
3	41
6-7	115
12	6
13	17
14	10
20	21
22	13
31	30
32-33	19
37	30
41	18
46	7
48	7
54	18
55	30
59	20
63	23
64	24
69	9
77-78	24
87	10
88	24
95	23
106	44
112	8
117	24
128	10
Total	625

Page	Number of responses
Maps	
28	13
40	5
53	10
72	6
99	7
105	7
116	11
Total	59
Reading Study Skills	
100	11
111	9
124	24
Total	44
Order of Ideas	
104	9
124	10
Total	19

Page	Number of responses
Language Study	
15	31
19	8
20	9
23	24
52	16
68	16
114-115	27
127	5
Total	136
Reference Books	
97	4
107	16
125	18
Total	38

(continued)

TABULATION SUMMARY SHEET #7 (continued)

Page	Number of responses	Page	Number of responses	Page	Number of responses
Literal		Critical		Critical (continued)	
8-9	3	2	13		
17	11	8-9	3	87	1
21	6	17	6	89-91	4
35	9	19	3	94	6
36	12	25	18	97	4
44-45	11	27	3	98	6
58	7	29	4	99	8
62	9	35	2	104	3
74	9	36	1	109	4
76	14	38-39	12	118-119	8
79-80	3	42	19	120	6
82	2	43	13	121	6
83-84	5	44-45	1	128	17
86	10	55	3	Total	243
87	8	56-57	22		
89-91	19	62	6		
93	6	66-67	4		
96-97	8	70-71	10		
102-103	28	76	5		
108	5	79-80	3		
111	5	81	5		
128	7	82	3		
Total	197	83-84	11		

TABULATION SUMMARY SHEET #8 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN GINN READER, 1932

Page	Number of responses	Page	Number of responses
Literal		Critical	
33	4	15	7
82	2	82	6
95	4	167	3
193	8	203	4
216	2	405	1
267	4	Total	21
277	10		
316	6		
405	2		
Total	42		

TABULATION SUMMARY SHEET #9 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN GINN WORKBOOK, 1931

Page	Number of responses	Page	Number of responses	Page	Number of responses
Vocabulary		Literal		Critical	
6-7	24	1-2	25	4	10
25-26	30	3	16	11	12
34	18	5	15	19-21	41
44	55	8-10	33	24	8
Total	127	12	13	36	15
		13-14	27	42	12
Table of Contents		15-16	11	Total	98
		17-18	21		
		22-23	19		
29	10	27-28	34		
43	10	30	12		
Total	20	31-33	34		
		35	18		
		37-38	29		
		39	6		
		40-41	22		
		45-46	28		
		Total	363		

TABULATION SUMMARY SHEET #10 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN GINN WORKBOOK, 1961

Page	Number of responses
Vocabulary	
4	26
6	20
7	22
8	16
10	8
11	50
12	29
13	24
14	39
17	25
18	22
19	25
21	8
23	77
24	20
25	18
26	34
28	44
29	24
32	37
35	21
37	1
38	114
39	36
43	42
44	40
45	32
47	32
49	10
51	15
53	139
54	36
59	18
61	29
64	20
65	56

Page	Number of responses
Vocabulary (continued)	
70	20
71	41
73	33
76	33
78	14
81	18
82	24
87	19
90	28
92	22
93	29
94	4
95	51
98	24
101	6
102	34
103	40
106	16
111	44
112	23
114	20
116	41
120	21
121	18
122	36
123	24
124	28
125	90
126	10
Total	2020
Maps	
31	16
55	14

Page	Number of responses
Maps (continued)	
97	10
109	1
117	21
Total	62
Reference Books	
1	20
33	14
37	4
42	25
99	20
113	24
119	5
Total	112
Study Skills	
57	13
105	8
Total	21
Order of Ideas	
27	7
74	9
85	12
107	11
Total	39

(continued)

TABULATION SUMMARY SHEET #10 (continued)

Page	Number of responses
Literal	
3	16
5	7
9	10
15	10
21	14
22	11
27	7
31	5
37	25
41	19
49	17
50	13
56	2
60	5
63	15
66	7
67	7
69	20
74	11
75	21
79	13
83	1
85	8
86	5
88	23
Literal (continued)	
91	7
97	2
101	6
104	6
109	8
115	6
117	8
118	22
119	12
Total	369
Critical	
9	8
10	8
15	9
16	8
20	8
27	8
29	6
34	11
36	2
37	9
41	9
Critical (continued)	
46	18
50	14
52	6
56	2
58	9
60	3
62	8
66	1
74	12
75	5
78	3
80	48
83	15
85	4
89	17
91	9
94	3
97	1
105	5
107	8
109	3
110	16
114	7
115	6
Total	309

TABULATION SUMMARY SHEET #11 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN HOUGHTON MIFFLIN READER, 1929

Page	Number of responses	Page	Number of responses
Literal		Critical	
7	2	7	2
12	3	21	3
36	1	29	7
48	8	36	5
52	1	48	11
68	12	52	2
72	15	68	6
80	4	80	2
90	16	107	2
107	7	115	6
115	7	125	5
125	10	140	3
132	22	157	1
140	4	160	3
157	5	164	1
160	5	165	2
164	4	174	3
165	2	Total	64
174	6		
	134		

TABULATION SUMMARY SHEET #12 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN HOUGHTON MIFFLIN WORKBOOK, 1966

Page	Number of responses	Page	Number of responses	Page	Number of responses
Vocabulary		Literal		Critical	
1	20	15	10	11	5
2	20	28	20	12	3
3	20	36	6	13	4
4	20	46	10	14	2
5	10	50	10	16	6
6	12	57	10	19	4
7	32	58	10	21	8
8	10	60	12	22	4
9	32	67	10	27	2
10	20	68	10	29	10
17	32	69	7	30	10
20	20	72	12	31	5
25	12	73	8	37	2
26	10	74	8	38	4
47	12	77	10	43	3
48	20	79	15	49	5
62	10	86	10	51	4
85	10	87	8	52	5
97	10	93	8	54	2
98	32	96	18	59	10
99	10	106	24	61	4
100	24	112	8	63	2
Total	398	Total	244	65	4
				70	5
				75	2
				78	5
				81	6
				88	3
				103	12
				107	18
				108	6
				109	10
				Total	175

(continued)

TABULATION SUMMARY SHEET #12 (continued)

Page	Number of responses
Reference Books	
33	50
34	16
35	20
45	20
55	20
71	20
104	20
Total	166
Order of Ideas	
32	10
53	10
76	20
Total	40
Study Skills	
23	10
24	18
39	15
40	18
64	18
80	16
82	14
83	14
84	14
91	16
92	16
94	13
101	17
102	16
Total	215
Maps and Graphs	
18	10
44	10
89	10
90	10
105	10
110	12
111	10
Total	72

TABULATION SUMMARY SHEET #13 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN MY WEEKLY READER, SIX ISSUES OF 1930'S

Volume	Number	Number of vocabulary responses	Number of literal responses	Number of critical responses
X	1	10	22	0
XII	1	10	20	4
XIII	16	15	10	5
XIV	1	12	15	7
XVII	1	0	10	8
XVIII	1	10	10	8
		57	87	32

TABULATION SUMMARY SHEET #14 FOR NUMBER OF RESPONSES FOR SUBSKILLS IN MY WEEKLY READER, SIX CURRENT ISSUES

Volume	Number	Number of vocabulary responses	Number of literal responses	Number of critical responses
XLIX	7	24	11	3
XLIX	8		10	5
XLIX	9		5	8
XLIX	10		6	2
XLIX	11		8	6
XLIX	12		4	2
		24	44	26